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SECOND ANNUAL CUMULATION

SUBJECT INDEX TO A SELECTED LIST OF
ENGINEERING AND TRADE PERIODICALS
FOR 1914

EDITED BY
MARION E. POTTER AND LOUISE D. TEICH

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Industrial Arts Index

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This issue of the *Industrial Arts Index* is the annual number for 1914. The best service to our subscribers required that this number be issued in December, altho the early date prevented the including of most of the December magazines. Those that were received prior to December 3 are here indexed.

Technical Journals

At a convention of the Federation of Trade Press Associations, held in Chicago last September, John W. Alvord, consulting engineer of Chicago, submitted an interesting paper on the use of the technical journal. It is not necessary to dwell on the portion of his paper that speaks of the value of the trade paper. No wide-awake engineer need be told to read the best periodicals of his profession. The problem that the wisest engineers seem unable to solve is how to make their reading, or the really valuable part of it, available for future reference.

Mr. Alvord suggests that several courses are open. "First, the engineer may rely on his memory and the published index to his bound volumes. It is safe to say, however, that few engineers really make much practical use of this method. The intervening index and the bother of a search prove to be discouraging to that degree that a proposed reference search is abandoned in about one-half the suggested attempts. The ideal filing system is one in which, with the least amount of effort, one can put his hand immediately and accurately on the thing itself, be it a book, pamphlet, or a data sheet.

"Second, he may keep a special card index of important data and reference to valuable articles. This at once involves labor and attention which few busy men can give, and which, if done by assistants or librarians, largely loses its personal value to the one who needs it. The same objection as to the discouraging effect of intervening indexes holds good here, too, and it is further safe to say that of all the contrivances for indexing the most difficult to handle readily and examine rapidly is the card index system.

"Third, he may abstract important data in a limited way on loose-leaf transparent paper, standard letter-size, and he may remove or detach articles of special value from out his journals, to be filed in regular office file system, like correspondence.

"The writer has tried all of the above methods at considerable cost in time and patience, and has, for many years, settled upon the third method. With all its admitted limitations it seems to be the best for an office which is expected to find out information on a great variety of subjects in a limited time, and with the least amount of effort."

Mr. Alvord admits that all three courses are costly in time and patience, and in the end unsatisfactory. And yet it is certainly a greater waste to spend money on a file of magazines that contain much valuable material, and to spend time in reading them, and yet have all this material absolutely unavailable when it is particularly needed. A printed index to these magazines is without question the most convenient and economical way of making this literature accessible. It takes up much less space, and is far more readily consulted than other indexes. An index like the *Industrial Arts Index* contains, moreover, references to many more periodicals than would be found in the private collection of any one engineer. This additional material may be obtained at a public library, or purchased at small cost. It is true that an index covering all kinds of engineering cannot be made to satisfy completely each particular specialist, but users of the *Index* may help to make it more nearly what they want it to be if they will make known to the publishers their particular needs.

As to the comparative cost of making a card catalog and buying a printed index, the printed list is so much cheaper that one wonders how the card catalog survives at all. It is estimated that the cost of cataloging books in libraries is about 15 cents for a single card, or about \$150 a thousand. The entries in the *Industrial Arts Index* cost the subscriber about 70 cents a thousand. There might, of course, be some co-operative arrangement by which cards should be printed for a group of libraries—a service similar to that furnished by the Library of Congress. But this would also be expensive. Even with the

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NOTES AND ANNOUNCEMENTS

large subscription list of the Library of Congress, the cards cost the subscribers from \$12 to \$20 a thousand cards. Moreover, this is only the initial expense, since the writing of the subject headings on the cards and alphabetizing and storing them adds materially to the cost. This expense might be justified if the card catalog were the best way of making information available, but, as Mr. Alvord says, the card index system, of all the contrivances for indexing, is the most difficult to handle readily and examine rapidly.

Trade Journal Standards

The engineering periodicals frequently contain articles on standardization. Even advertising catalogs have not escaped the demand for standardizing. The periodicals themselves alone seem exempt from any law of uniformity. Yet the trade paper is a valuable tool, and nothing that may increase its usefulness is unimportant. The valuable contents of *The Engineer*, for instance, would be much more valuable if it were printed in a more convenient size and on less crumpled paper. The subscribers of the *Engineering Record* would no doubt continue to send in their subscriptions if it were a double-elephant folio, but if they were required to vote on the matter it is safe to say that the quarto or octavo size would win an easy victory.

A reader frequently desires to consult a table of contents. In many instances this requires a search thru the whole magazine, so that the table utterly fails of its purpose. Most readers would much rather have no table of contents at all, than have it provok-

ingly hidden between advertising pages or in the middle of the magazine. A book that had its table of contents elsewhere than in the front would be considered very cheap and amateurish in its make-up. What would one think of a shop manager who should make a key in order to open the door to a shorter route and then hide the key without unlocking it. Better far take the longer route in the first place. The things that are made for a useful purpose, that are capable of serving that purpose and then "won't work," are always the most execrable.

No less exasperating is a search through a large magazine to find who publishes it, how often it is published and the price. This information should without question be on the very first page of reading matter. Uniformity of paging is also much to be desired. Some publishers of periodicals page each number separately, thereby confessing that they do not consider their work worth preserving in a cover as an annual volume. One magazine indexed in the *Industrial Arts Index*, the *Textile World*, pages each number separately and in addition gives the volume paging in the inside edge, where it escapes notice unless the magazine is opened completely. Perhaps it is better that this double pagination should escape notice as it is certainly confusing.

There is undoubtedly a best way of making up a magazine, and in these days of "efficiency," the best way ought to be found and followed. But better a second best system with uniformity than a variety of confusing practices, wasteful of both the time and the patience of the reader.

List of Periodicals Indexed

- Am Chem Soc J**—Journal of the American Chemical Society. \$6. Charles L. Parsons, sec., Box 505, Washington, D. C.
- Am Eng**—American Engineer. See Ry Age (Mech ed).
- ✓ **Am For**—American Forestry. \$2; single numbers 20c. American Forestry Assn., 1410 H St. N. W., Washington, D. C.
- Am Gas Light J**—American Gas Light Journal. \$3; single numbers 10c. American Gas Light Journal, 42 Pine St. New York.
- Am Ind**—American Industries. \$1; single numbers 10c. National Manufacturers Co., 30 Church St. New York.
- Am Inst Arch J**—Journal of the American Institute of Architects. \$5; single numbers 50c. American Institute of Architects, The Octagon, Washington, D. C.
- Am Inst E E Pro**—American Institute of Electrical Engineers. Proceedings. \$10; single numbers \$1. F. L. Hutchinson, sec., 33 W 39th St. New York.
- Am Inst Min E Bul**—Bulletin of the American Institute of Mining Engineers. subs. \$10; single numbers \$1; to members, public libraries, and educational institutions, \$5; single numbers 50c. B. Stoughton, sec., 29 W 39th St. New York.
- Am Soc M E J**—Journal of the American Society of Mechanical Engineers. \$3; single numbers 35c. American Society of Mechanical Engineers, 29 W 39th St. New York.
- Am Water Works Assn J**—Journal of the American Water Works Association. American Water Works Assn., 2419 Greenmount Av, Baltimore, Md.
- Arch & Bldg**—Architecture and Building. \$2; single numbers 20c. William T. Comstock Co., 23 Warren St. New York.
- ✓ **Arch Rec**—Architectural Record. \$3; single numbers 35c. Architectural Record Co., 115 W 40th St. New York.
- Assn Eng Soc J**—Journal of the Association of Engineering Societies. \$3; single numbers 30c. Association of Engineering Societies, J. W. Peters, sec., 3817 Olive St. St. Louis, Mo.
- ✓ **Automobile**—Automobile. \$3; single numbers 10c. Class Journal Co., 231 W 39th St. New York.
- Bldg Age**—Building Age. \$2; single numbers 20c. David Williams Co., 239 W 39th St. New York.
- ✓ **Brickb**—Brickbuilder. \$5; single numbers 50c. Rogers & Manson Co., 85 Water St. Boston.
- Colliery**—Colliery Engineer. \$2; single numbers 25c. International Textbook Co., Scranton, Pa.
- ✓ **Concrete Cem**—Concrete-Cement Age. \$1.50; single numbers 15c. Concrete-Cement Age Pub. Co., 97 West Fort St. Detroit, Mich.
- Dom Eng**—Domestic Engineering. \$2; single numbers 10c. Domestic Engineering Co., 415-417 Plymouth Court, Chicago.
- Econ Geol**—Economic Geology. \$3; single numbers 50c. Economic Geology Pub. Co., 41 North Queen St. Lancaster, Pa.
- Elec Ry J**—Electric Railway Journal. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St. New York.
- Elec R & W Elec'n**—Electrical Review and Western Electrician. \$3; single numbers 10c. Electrical Review Pub. Co., 608 S Dearborn St. Chicago.
- ✓ **Elec W**—Electrical World. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St. New York.
- Engineer**—Engineer. Thick paper ed £2 6d; Canadian subs £1 16s; thin paper ed £1 16s; Canadian subs £1 11s 6d. Engineer, 33 Norfolk St. Strand, London, W. C.
- Eng & Contr**—Engineering and Contracting. \$2. Myron C. Clark Pub. Co., 608 S Dearborn St. Chicago.
- Eng & Min J**—Engineering and Mining Journal. \$5; single numbers 15c. Hill Pub. Co., 10th Av at 36th St. New York.
- Eng M**—Engineering Magazine. \$3; single numbers 25c. Engineering Magazine Co., 110 Nassau St. New York.
- Eng N**—Engineering News. \$5; single numbers 15c. Hill Pub. Co., 10th Av at 36th St. New York.
- ✓ **Eng Rec**—Engineering Record. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St. New York.
- Eng Soc W Pa**—Proceedings of the Engineers' Society of Western Pennsylvania. \$5; single numbers 50c. Engineers' Society of Western Pennsylvania, 2511 Oliver Bldg, Pittsburgh, Pa.
- ✓ **Foundry**—Foundry. \$1; single numbers 15c. Penton Pub. Co., Penton Bldg. Cleveland, O.
- Gen Elec R**—General Electric Review. \$2; single numbers 20c. General Electric Co., Schenectady, N. Y.
- Good Roads n s**—Good Roads new series. \$2; single numbers 5c except first numbers of each month 10c. E. L. Powers Co., 150 Nassau St. New York.
- ✓ **Heat & Ven**—Heating and Ventilating Magazine. \$1; single numbers 10c. Heating & Ventilating Magazine Co., 1123 Broadway, New York.
- ✓ **Horseless Age**—Horseless Age. \$2; single numbers 10c. Horseless Age Co., 250 W 54th St. New York.
- Ill U Eng Exp Sta Bul**—Illinois University Engineering Experiment Station. Bulletin. Univ. of Ill., Urbana.
- Illum Engr**—Illuminating Engineer. 10s 6d; single numbers 1s. Illuminating Engineering Pub. Co., 32 Victoria St. London, S. W.
- Illum Eng Soc**—Transactions of the Illuminating Engineering Society. \$5; single numbers 75c. Illuminating Engineering Soc., 29 W 39th St. New York.
- Ind Eng**—Industrial Engineering and Engineering Digest. \$2; single numbers 20c. Technical Literature Co., 120 W 32d St. New York.
- Inland Ptr**—Inland Printer. \$3; single numbers 30c. Inland Printer Co., 632 Sherman St. Chicago.
- Int Marine Eng**—International Marine Engineering. \$2. Aldrich Pub. Co., 17 Battery Place, New York.
- ✓ **Iron Age**—Iron Age. \$5; single numbers 20c. David Williams Co., 239 W 39th St. New York.
- Iron Tr R**—Iron Trade Review. \$1; single numbers 15c. Penton Pub. Co., Penton Bldg., Cleveland, O.
- J Account**—Journal of Accountancy. \$3; single numbers 30c. Ronald Press Co., 20 Vesey St. New York.
- J Fr Inst**—Journal of the Franklin Institute. \$5; single numbers 50c. Franklin Institute, Philadelphia.
- J Ind & Eng Chem**—Journal of Industrial and Engineering Chemistry. \$6. American Chemical Society, Easton, Pa.
- Locomotive**—Locomotive. 50c; single numbers gratis; recent bound volumes \$1. Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.
- ✓ **Mach**—Machinery. Engineering edition \$2; coated pap. \$2.50; single numbers 20c. Industrial Press, 140 Lafayette St. New York.
- Met & Chem Eng**—Metallurgical and Chemical Engineering. \$2; single numbers 25c. McGraw Pub. Co., 239 W 39th St. New York.
- Metal Ind n s**—Metal Industry new series. \$1; single numbers 10c. Metal Industry, 99 John St. New York.

LIST OF PERIODICALS INDEXED

Metal Work—Metal Worker, Plumber & Steam Fitter. \$2; single numbers 10c. David Williams Co., 239 W 39th St, New York.

Munic Eng—Municipal Engineering. \$2; single numbers 25c. Engineering Pub. Co., Indianapolis, Ind.

Munic J—Municipal Journal. \$3; single numbers 10c; special numbers 25c. Municipal Journal and Engineer, Inc., 50 Union Square, New York.

Power—Power. \$2; single numbers 5c. Hill Pub. Co., 10th Av at 36th St, New York.

Ry Age—Railway Age Gazette. \$5; single numbers 15c. Simmons-Boardman Pub. Co., Woolworth Bldg, New York.

Ry Age (Mech ed)—Railway Age Gazette, mechanical edition including the American Engineer. \$2; single numbers 20c. Simmons-Boardman Pub. Co., Woolworth Bldg, New York.

Ry R—Railway Review. \$4; single numbers 15c. Railway Review, 1407 Ellsworth Bldg, Chicago; 30 Church St, New York.
Formerly Railway and Engineering Review.

Sch Mines Q—School of Mines Quarterly. \$2; single numbers 50c. School of Mines Quarterly, Columbia University, New York.

Sci Am—Scientific American. \$3; single numbers 10c. Munn & Co., 361 Broadway, New York.

Sci Am S—Scientific American Supplement. \$5; single numbers 10c. Munn & Co., 361 Broadway, New York.

Sibley J—Sibley Journal of Engineering. \$2; single numbers 25c. Sibley College, Cornell Univ., Ithaca, N. Y.

Stevens Ind—Stevens Indicator. \$1.50; single numbers 50c. Stevens Institute of Technology, Hoboken, N. J.

Textile World—Textile World Record. \$2. Lord & Nagle Co., 144 Congress St, Boston.

U S Agric Bul—United States. Dept. of Agriculture. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

Contributions from the Bureau of Chemistry, Forest Service and Office of Public Roads are indexed.

U S Bur For & Dom Com—United States. Bureau of Foreign and Domestic Commerce. Special agents series. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

U S Bur Mines Bul—United States. Bureau of Mines. Bulletin. Distributed free of charge. U. S. Bureau of Mines, Washington, D. C.

U S Bur Mines Circ—United States. Bureau of Mines. Miners' circular. U. S. Bureau of Mines, Washington, D. C.

U S Bur Mines Tech Pa—United States. Bureau of Mines. Technical paper. U. S. Bureau of Mines, Washington, D. C.

U S Bur Stand Bul—United States. Bureau of Standards. Bulletin. Gratis to educational and scientific institutions and to government depositories. U. S. Bureau of Standards, Washington, D. C.

Sold to individuals by the Superintendent of Documents. \$1; single numbers 25c.

U S Bur Stand Circ—United States. Bureau of Standards. Circular. U. S. Bureau of Standards, Washington, D. C.

U S Bur Stand Tech Pa—United States. Bureau of Standards. Technologic papers. U. S. Bureau of Standards, Washington, D. C.

U S Sp Cons Rep—United States. Special consular reports. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

W Soc E J—Journal of the Western Society of Engineers. \$3; single numbers 50c. Western Society of Engineers, 1735 Monadnock Blk, Chicago.

Wis U Bul Eng S—Bulletin of the University of Wisconsin, Engineering Series. Univ. of Wis., Madison.

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- Abderhalden, Emil, 1877-**
Abderhalden reaction for the diagnosis of disease. Sci Am S 78:119 Ag 22 '14
- Abietic acid**
Abietic acid and some of its salts. E. O. Ellingson. Am Chem Soc J 36:325-35 F '14
- Abilene, Kansas**
Politics and government
Engineer-manager plan in small Kansas city: abstracts. K. Riddle. Eng Rec 69:130-1 Ja 31 '14; Eng & Contr 41:97-8 Ja 21 '14; Eng N 71:325-6 F 5 '14
Water supply
Records of water-works mains and services at Abilene. K. Riddle. Eng N 71:1007 My 7 '14
- Ability, Executive.** See Executive ability
- Abrasive wheels.** See Grinding wheels
- Abrasives**
Abrasive paper and cloth manufacture; machines used by the Carborundum co. for applying abrasive and cutting the coated stock. il Mach 21:90-1 O '14
Artificial abrasives: silicon-carbide and aluminous abrasives; their composition, selection and duty. C. Hawke. Eng M 48:262-5 N '14
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Experimental evidence of molecular structure. diag Sci Am S 77:299 My 9 '14
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Annual British report on electrical accidents. Elec R & W Elec'n 65:182-4 Ji 25 '14
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Industrial accident analyses in Massachusetts. Eng Rec 69:239 F 28 '14
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- Accounting**
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Interrelation of financial and operating data. W. A. Staub. J Account 17:1-12 Ja '14
N. E. L. A. reports and papers on accounting methods. Elec W 63:1322-7 Je 6 '14

Accounting—Continued.

Organization of the accounting department of a gas company; with discussion. R. C. James. *Am Gas Light J* 101:1-3 Jl '14

Real estate accounting; and May premiums from sales of capital stock be used for dividends? H. I. Thomas. *J Account* 18: 357-65 N '14

Simplified accounting. J. C. Morrison. *Inland Ptr* 53:433-4 Je '14

Statement of accounts of holding companies. H. C. Freeman. *J Account* 18:157-80 S '14

Sugar mills and their accounts. H. Daspit. *J Account* 18:109-13 Ag '14

Taxes as deferred debits. O. B. Thayer. *J Account* 18:114-7 Ag '14

Treatment of the returnable package in accounts. G. V. W. Lyman. *J Account* 17:427-30 Je '14

Treatment of the returnable package in accounts. W. Jensen. *J Account* 18:118-9 Ag '14

Value of use of color in making and verifying accounting records. E. H. Cooper. *J Account* 17:290-3 Ap '14

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Accountancy laboratory. R. H. Montgomery. *J Account* 17:405-11 Je '14

Business training for the engineer. A. C. Humphreys. *Stevens Ind* 31:241-54 Jl '14; *Abstract, Elec Ry J* 43:366-7 F '14; *Abstract, Am Soc M E J* 36:193-204 My '14

Scientific and educational problems of the accountancy profession. J. C. Duncan. *J Account* 18:260-75 O '14

Students' department, edited by S. Walton. *See* monthly numbers of *Journal of accountancy*

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Estimation of acetanilide and phenacetin in admixture. W. O. Emery. *J Ind & Eng Chem* 6:665-9 Ag '14

Acetic anhydride

Action of acetic anhydride on some benzyldene anthranilic acids. J. B. Ekeley and L. C. Slater. *Am Chem Soc J* 36:603-6 Mr '14

Acetone

Equilibria in the systems, water, acetone and inorganic salts. G. B. Frankforter and L. Cohen. *Am Chem Soc J* 36:1103-24 Je '14

Acetyl

Determination of the acetyl number of oils, fats, etc. E. B. Holland. *J Ind & Eng Chem* 6:482-6 Je '14

Acetylacetone-urea

Constitution of acetylacetone-urea. W. J. Hale. *Am Chem Soc J* 36:104-15 Ja '14

Acetylene

Physical properties of ethane, ethylene and acetylene. O. Maass and D. McIntosh. *Il Am Chem Soc J* 36:757-42 Ap '14

Physiological characteristics of acetylene, with respect to its use in mining. E. E. Smith. *Sch Mines Q* 35:143-53 Ja '14

Soldering torch employing compressed acetylene. *Il Elec R & W Elec'n* 65:1017 N 21 '14

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New standard light source. L. A. Jones. *Am Gas Light J* 101:251-3 O 19 '14

Acetylene for lighthouses, buoys, etc.

Navigating lights for the Panama canal. *Il Sci Am* 110:200-1+ Mr 7 '14

Acetylene generators

New acetylene generator. *Il diag Engineer* 118:469-70 N 13 '14

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Leaching-plant construction. S. Croasdale. *Am Inst Min E Bul* 92:1893-6, 1913-5 Ag '14; *Same, Eng & Min J* 98:961-3 N 28 '14

Mastic lining for acid tanks. *Eng Rec* 69:339 Ap 4 '14

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Design of chemical-resisting wastes. *diags Metal Work* 82:428-9 S 25 '14

Handling corrosive liquids; copper-steel piping and ferrosilicon values for resisting action of acids. G. C. Clifford. *Il Iron Age* 94: 945 O 22 '14

Using tile pipe for chemical wastes. *diag Metal Work* 81:109 Ja 9 '14

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Action of acids upon fructose and glucose. M. M. Harrison. *Am Chem Soc J* 36:586-603 Mr '14

Method for handling chemical solutions in quantity. C. C. Phelps. *Il diag Met & Chem Eng* 12:391-2 Je '14

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Melting and solidifying points of mixtures of fatty acids and the use of these points to determine the composition of such mixtures. E. Twitchell. *J Ind & Eng Chem* 6:564-9 Jl '14

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Molecular rearrangements in the camphor series. W. A. Noyes and L. F. Nickell. *Am Chem Soc J* 36:118-27 Ja '14

Nitrosulfonic acids of *p*-xylene. W. J. Karslake and R. C. Iluston. *Am Chem Soc J* 36: 1244-58 Je '14

Acoustics, Architectural

Acoustic effect of fireproofed cotton-flannel sound absorbers. F. R. Watson. *Eng N* 71: 261 Ja 29 '14

Acoustics of auditoriums. F. R. Watson. *bibliog il U Eng Exp Sta Bul* 73:1-32 '14

Architectural acoustics, building material, and musical pitch. W. C. Sabine. *Brickb* 23: 1-6 Ja '14

Actinic effect of illuminants in photography. F. M. Steadman. *Illum Eng Soc* 9:265-91 no 3 '14

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Administrator as diplomat. E. D. Jones. *Eng M* 47:715-23, 842-8; 48:23-32 Ag-O '14

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Nature of basic lead carbonate. E. Euston. *J Ind & Eng Chem* 6:382-3 My '14

Selective adsorption. E. G. Parker. *J Ind & Eng Chem* 6:831-5 O '14

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Chemist, a growing factor in merchandizing. A. V. H. Mory. *J Ind & Eng Chem* 6:659-90 Ag '14

Commercial papain and its assay. H. M. Adams. *J Ind & Eng Chem* 6:669-70 Ag '14

Lindquist and other pure textile bills. *Textile World* 46:386-91 Ja '14

Pure textile legislation. *Textile World* 46: 475-9 F '14

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Criticism of newspapers and advertisements. J. L. Frazier. *See* monthly numbers of *Inland printer*

Lesson in display. J. L. Frazier. *Inland Ptr* 53:83-5 Ap '14

Newspaper work. J. C. Morrison. *See* monthly numbers of the *Inland printer*

Advertising

- Advertising a plumbing and heating business. G. M. Rittelmeyer, *Dom Eng* 68:9 JI 4 '14
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- Pilgrim light car to sell for \$650. il Automobile 31:458-9 S 3 '14
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Converting a pin-connected bridge into a riveted structure. *diags* Eng N 72:738-40 O 8 '14

Doubling the load capacity of an old iron railroad viaduct across Manistee river. W. T. Curtis. *il* *diags* Ry R 54:170-6 Ja 31 '14

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Raising and repairing the wrecked W. & L. E. R. bridge over the Maumee river at Toledo. E. U. Smith. *il* Eng N 72:149-2 J1 16 '14

Rebuilding a bridge 500 years old. Eng Rec 70:271 S 5 '14

Rebuilding ice-wrecked bridge near Pierreville, Quebec. *il* Eng Rec 70:305 S 12 '14

Reconstruction of Canadian Pacific bridge over the St. Lawrence near Lachine. *il* Eng N 71:728-30 Ap 2 '14

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- Reconstruction of the Queensboro bridge. diags Eng N 72:360-1 Ag 13 '14
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- Bridge repair derrick. diags Eng N 72:200-1 JI 23 '14
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- Forms and specifications for bridge work issued by the Illinois state highway department. Good Roads n s 8:98 S 5 '14
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- Measurement and distribution of brightness. J. R. Cravath. Illum Eng Soc 9:394-412 no 5 '14; Abstract. Elec R & W Elec'n 64:1038 My 23 '14
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- Briquet for saving fuel waste. D. A. Willey. il Colliery 34:418-20 F '14
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- Carrying out the orders of the boss. C. Wise. Mach 21:7 S '14

- Distribution of shop tools. Ry Age (Mech ed) 88:431-2 Ag '14; Same cond. Ry Age 57:205 Jl 31 '14

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- Keeping track of stock in a factory: board and tags used by National-Acme mfg. company. il Iron Age 94:429-30 Ag 20 '14

- Labor-saving method of setting up work. il Mach 21:338 O '14

- Limits for the tool department. C. Knowles. Mach 20:750 My '14

- Maintenance of machinery in the industries. C. A. Tupper. Iron Age 93:618-9 Mr 5 '14

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- See also* Locomotive shops; Machine shop practice; Mechanical handling; Railroads—Shops; Scientific management; Shop management; Steel works

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- Accuracy—the Holley byword. il diags Automobile 31:166-70 Jl 23 '14

- Building large gas engine flywheels. J. H. B. Bryan. diags Iron Age 93:600-2 Mr 5 '14; Same. Sci Am S 77:338-9 My 30 '14

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- Dial method of reducing machine production costs. F. G. Riehl. il Eng M 46:739-52 F '14

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- Examples of screw machine set-ups: the Cleveland automatic. D. T. Hamilton. *il* diags Mach 21:215-9 N '14
- Fixtures and machines for wire forming. F. H. Mayoh. *il* diags Mach 21:8-11 S '14
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- Forming tools for gear cutters. J. Edgar. *il* diags Mach 20:262-1 JI '14
- Holding and machining thin work. A. A. Dowd. *il* diags Mach 20:1016-21 Ag '14
- How shear blades are made. R. V. Sawhill. *il* plan Iron Tr R 54:716-7 Ag 16 '14
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- Machining convex and concave surfaces. A. A. Dowd. *il* diags Mach 20:349-55 Ja '14
- Machining desk fan parts. *il* diags Mach 20:1022-4 Ag '14
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- Making Spitzer bullets. D. T. Hamilton. *il* Mach 20:641-6 Ap '14
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- Pressed vs. machine finished parts. P. O. Urbani-Puschmann. *il* diags Mach 20:835-6 Je '14
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See also Abrasives; Chucking machines; Chucks; Cutting machinery; Drilling and boring; Drilling and boring machinery; Electric driving; Feed mechanisms; Gear cutting; Grinding and polishing; Grinding machines; Hobbs; Lathes; Machine shop practice; Milling machines; Pipe threading machines; Planing machines; Pneumatic tools; Punching machinery; Screw machines; Shears; Tool steel

Fixtures

- Automatic indexing fixture for cutting internal ratchet gears. A. Spangenberg. *il* Mach 20:751 My '14
- Chucking methods for irregular parts. A. A. Dowd. diags Mach 20:922-6 Jl '14
- Counterbalanced and indexing fixtures. A. A. Dowd. *il* diags Mach 20:661-6 Ap '14
- Drilling and tapping fixture. C. F. Meyer. diags Mach 20:575-6 Mr '14
- External holding devices for second-operation work. A. A. Dowd. diags Mach 20:823-8 Je '14
- Fixture for milling clutches. I. W. Sprink. diags Mach 20:1025 Ag '14
- Fixture for planing clutches in the shaper. C. Boella. *il* Mach 20:462 F '14
- Fixture with clamping and ejecting devices. G. R. Richards. diags Mach 20:785 My '14
- Fixtures and machines for wire forming. F. H. Mayo. diags Mach 21:8-11 S '14
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- Cast iron for machine-tool parts. H: M. Wood. *il* Am Soc M E J 35:1631-44 N '13; Same. Mach 20:383-5 Ja '14; Same cond. Iron Age 92:1312-4 D 4 '13; Same cond. Foundry 41:523-6 D '13; Abstract of paper, with discussion. Am Soc M E J 36:107-12 Mr '14
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Repair

Machine tool repairs. Ry Age (Mech ed) 88: 331 Ag '14; Same cond. Ry Age 57:205 JI 31 '14

Terminology

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Mechanical production recording: an electrically-operated mechanism for indicating and recording machine operations. D. T. Hamilton. *il* *diag* Mach 20:869-72 Je '14

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Design

Angle of torsion: designing shafting of compound geared machines for equal torsional strength. B. D. Pinkney. *diags* Mach 21:198-9 N '14

Formulas for chordal thickness and corrected pitch depth. J. T. Brockway. *diags* Mach 21:36 S '14

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See also Bearings; Belting; Bolts and nuts; Bushings; Cams; Drawing room practice; Gearing; Machine shop practice

Erection

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Exhibitions

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